UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/563,071	06/14/2006	Daniel N. Bauer	CH920030035US1	5849

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EXAMINER
BENOIT, ESTHER

ART UNIT	PAPER NUMBER
2442	

NOTIFICATION DATE	DELIVERY MODE
12/24/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 September 2009*.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-13,17-20,22-24 and 27-30* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-13,17-20,22-24 and 27-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Response to Amendments

1.   This Action is in Response to an Amendment filed on September 22, 2009.

Claims 1, 15, 17, 27, and 29 have been amended. Claims 14, 16, 21, and 25-26 have

been cancelled. Claims 1-13, 15-20, 22-24, and 27-30 are pending in this application.

Response to Arguments

2.   Applicant's arguments, filed 09/22/2009 have been fully considered and are

persuasive. However, upon further consideration, a new ground(s) of rejection is made

in view of Ranganathan et al. (*Improving Data Availability through Dynamic model-

Driven Replication in large Peer-to-Peer Communities*).

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

4.   Claims 1-8, 23-24, and 27-30 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Rinaldi et al. (*Routing and Data Location in Overlay Peer-to-Peer

Networks*, July 2002), in view of Ranganathan et al. (*Improving Data Availability through

Dynamic model-Driven Replication in large Peer-to-Peer Communities*).

With respect to claim 1, Rinaldi discloses:

- selecting at least one replica number by applying a given function, requiring the replica number and a document identifier as input (pg. 23, paragraph 1, "The first mechanism...")

- determining at least one entity identifier, each entity identifier representing an entity in the network that might provide the replica (pg. 23, paragraph 2, "The replica at n1...")

- addressing a document related request to at least one of the identified entities (pg. 23, paragraph 2, "The replica at n1...")

Rinaldi does not explicitly teach:

- wherein, upon receiving a "replica not available" response from each of the addressed entities:

- setting a lowest replica number out of the addressed replica numbers as an upper limit for a new set of replica numbers associated with the entities;

- selecting another entity from the identified entities associated with the new set of replica numbers for addressing the document related request.

However, Ranganathan discloses wherein, upon receiving a "replica not available" response from each of the addressed entities: setting a lowest replica number out of the addressed replica numbers as an upper limit for a new set of replica numbers associated with the entities and selecting another entity from the identified entities associated with the new set of replica numbers for addressing the document related

request (pg. 3, Section 4.1 "Computing the number of replicas per file", *where determining the number of replicas necessary to maximize availability is computed*).

Therefore, it would have been obvious for one skilled in the art to combine the teachings of Rinaldi with the teachings of Ranganathan to use lower number of replicas when selecting an available replica, because it will allow the system to increase the availability of a replica file (pg. 5, 6.2. "Effect of decentralized decision making" paragraph 2, "When the probability...")

With respect to claim 29, the limitations of claim 29 are similar to the limitations of independent claim 1. therefore, claim 29 is rejected for the same reasons as claim 1 above. Please see rejection.

With respect to claim 2, Rinaldi discloses selecting k = N replica numbers, wherein N is a maximum number for replicas, by applying the given function k times: determining k entity identifiers (pg. 20, paragraph 3, "A hash function...")

With respect to claim 3, Rinaldi discloses selecting k replica numbers from a maximum number of N replicas with k < N, by applying the given function k times, and determining k entity identifiers (pg. 20, paragraph 3, "A hash function...")

With respect to claim 4, Rinaldi discloses wherein k <= 5 (pg. 20, paragraph 3, "A hash function...")

With respect to claim 5, Rinaldi discloses wherein k = 1 (pg. 20, paragraph 3, "A hash function...")

With respect to claim 6, Rinaldi discloses addressing the document related request to all identified entities (pg. 23, paragraph 2, "The replica at n1...")

With respect to claim 7, Rinaldi discloses addressing the document related request to only selected ones of the identified entities (pg. 23, paragraph 2, "The replica at n1...")

With respect to claim 8, Rinaldi discloses addressing the document related request only to one entity selected from the identified entities (pg. 23, paragraph 2, "The replica at n1...")

With respect to claim 23, Rinaldi discloses a computer program element comprising computer program code means which, when loaded in a processor unit of a computing entity, configures the processor unit to perform a method as claimed in any one of the preceding claims (pg. 23, paragraph 1, "The first mechanism...")

With respect to claim 24, Rinaldi discloses a computing entity for retrieving a replica of an electronic document in a computer network, comprising a control unit designed to perform a method (pg. 23, paragraph 1, "The first mechanism...")

With respect to claim 27, Rinaldi discloses a computing entity for depositing a replica of an electronic document in a computer network, comprising a control unit designed to perform a method (pg. 23, paragraph 1, "The first mechanism...")

With respect to claim 28, Rinaldi discloses an article of manufacture comprising a computer usable medium having computer readable program code means embodied therein for causing retrieval of a replica of an electronic document in a computer network, the computer readable program code means in said article of manufacture comprising computer readable program code means for causing a computer to effect the steps (pg. 23, paragraph 1, "The first mechanism...")

With respect to claim 30, Rinaldi discloses a computer program product comprising a physical computer readable medium having computer readable program code means embodied therein for causing retrieval of a replica of an electronic document in a computer network, the computer readable program code means in said computer program product for causing a computer to effect the functions (pg. 23, paragraph 1, "The first mechanism...")

5.   Claims 9-13, 15, 17-20, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rinaldi et al. (*Routing and Data Location in Overlay Peer-to-Peer Networks*, July 2002), in view of Ranganathan et al. (*Improving Data Availability through Dynamic model-Driven Replication in large Peer-to-Peer Communities*), and further in view of Guy et al. (*Replica Management in Data Grids*, July 2002)

With respect to claim 9, Rinaldi and Ranganathan do not explicitly disclose calculating a cost function for each of the k entities, the cost function providing a cost value as result which indicates a cost to address the relevant entity.

However, Guy discloses calculating a cost function for each of the k entities, the cost function providing a cost value as result which indicates a cost to address the relevant entity (pg. 13, "Use case: Replicate...", "t-t3...")

Therefore, it would have been obvious for one skilled in the art to combine the teachings of Rinaldi and Ranganathan with the teachings of Guy to calculate a cost

function for each replica retrieved, because it will allow the system to estimate a time needed to access a given replica and allow optimization of the system.

With respect to claim 10, Rinaldi and Ranganathan do not explicitly disclose calculating a cost function for each of the k entities, the cost function providing a cost value as result which indicates a cost to address the relevant entity, wherein each entity to be addressed is selected from the identified entities due to an associated cost value

However, Guy discloses calculating a cost function for each of the k entities, the cost function providing a cost value as result which indicates a cost to address the relevant entity, wherein each entity to be addressed is selected from the identified entities due to an associated cost value (pg. 13, "Use case: Replicate…", "t-t3...")

Therefore, it would have been obvious for one skilled in the art to combine the teachings of Rinaldi and Ranganathan with the teachings of Guy to calculate a cost function for each replica retrieved, because it will allow the system to estimate a time needed to access a given replica and allow optimization of the system.

With respect to claims 11-13, the claims are rejected for the same reasons as claim 10 above. Please see rejection of claim 10.

With respect to claims 15, 17-20 and 22, the claims are rejected for the same reasons as claim 1 above. Please see rejection of claim 1.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37

CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Esther Benoit whose telephone number is 571-270-

3807. The examiner can normally be reached on Monday through Friday between 7:30

a.m and 5 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Saleh Najjar can be reached on 571-272-4006. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300

Information regarding the status of an application may be obtained from the

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you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

E.B
December 8, 2009

/Shawki S Ismail/
Primary Examiner, Art Unit 2455